ABSTRACT OF THE DISCLOSURE

A hardware accelerator for improving the decompression performance when decompressing data in Lempel-Ziv-Huffman compressed data format. The use of a Huffman encoding second stage in the popular and widely-used Lempel-Ziv-Huffman standard improves the compression ratio but complicates the decompression, because the Huffman encoding is applied selectively only to certain parts of the Lempel-Ziv tokens, and thus Huffman decoding must also be applied selectively during decompression. The present invention features a variable-length token decoder which is able to selectively decode the Huffman-encoded portions of the compressed data, and therefore enables high-performance decompression for compressed data having a very good compression ratio. Such an accelerator is well-suited for use in data processors which are to be loaded with pre-compressed data and software applications, particularly those employing flash memory.